

Hoover, Richard E.
LOW VISION CLINIC; FINAL
REPORT.

HV5650
H769



**15 WEST 16th STREET
NEW YORK, N. Y., 10011**

LOW VISION CLINIC
VOCATIONAL REHABILITATION ADMINISTRATION
PROJECT NO. RD-701-61

November 1, 1960 to October 31, 1964

FINAL REPORT
by

Richard E. Hoover, M.D.
Project Director

Presbyterian Eye, Ear and Throat Charity Hospital
1017 East Baltimore Street
Baltimore, Maryland 21202

May 10, 1967

This investigation was supported, in part, by a research grant, number RD-701-61, from the Vocational Rehabilitation Administration, Department of Health, Education and Welfare, Washington, D.C. 20201

TABLE OF CONTENTS

LIST OF TABLES	2
INTRODUCTION	3
METHODS AND PROCEDURES	5
RESULTS OF THE PROGRAM	11
RECOMMENDATIONS	12
SUMMARY	14
APPENDIX	21

Letter order - Received 9/20/67

HV5650
H 769
Copy one



Digitized by the Internet Archive
in 2013

<http://archive.org/details/lowvisionclinicf00rich>

LIST OF TABLES

<u>Tables</u>	<u>Page</u>
1-TOTAL POPULATION BY AGE AND SEX	15
2-SUCCESS IN USING AIDS BY AGE DISTRIBUTION	16
3-SUCCESS IN USING AIDS BY EDUCATIONAL ATTAINMENT...	17
4-SUCCESS IN USING AIDS BY OCCUPATIONAL STATUS	18
5-SUCCESS IN USING AIDS BY SITE OF EYE AFFECTION.....	19
6-DEGREE OF SUCCESS ACCORDING TO AGE.....	20

INTRODUCTION

The impetus for research and development in the correction of sub-normal vision stems from the original clinical work done at the Brooklyn Industrial Home for the Blind. Feeling that an Optical Aids Clinic could function efficiently within the framework of the Presbyterian Eye, Ear and Throat Charity Hospital and recognizing the value of the research being done and of the need to continue the availability of the services to the Maryland community, it was decided to initiate a clinic at the hospital. Application was instituted resulting in Project RD-701-61.

The Clinic became operational under the terms of the grant in November, 1960. The equipment used in the clinic is listed in Appendix A. A major part of this list was acquired at the inception of the clinic but some items were added later as they became available.

Purpose of the Project

The purpose of the Project RD-701-61 was to establish an Optical Aids Clinic for the fitting of the cecutients, using the most advanced techniques and optical devices which would enable these persons to enhance their employability and benefit themselves and their community, and do the necessary clinical research into the value of the techniques and devices being developed.

The objectives of Project RD-701-61 as originally conceived were as follows:

1. To apply promptly the knowledge, methods and techniques that were emerging for improving the residual visual acuity and efficiency of the visually handicapped persons.
2. To strengthen and increase state and community resources, including services and facilities for the rehabilitation of visually handicapped or "blind" persons.
3. To combine the resources of voluntary organizations and the public program to attain the above objectives.
4. To increase substantially the number of cecutients being prepared for remunerative employment; to do this by extending to other parts of the nation the modern optical aids services necessary to help visually impaired persons to make maximum use of their residual vision.

During the course of the project several corollary objectives emerged as the need and remedy became apparent:

1. To bring to the attention of the general public the advances in optical sciences that were becoming available to the visually impaired and to acquaint the same public with the possibility that those people who had been diagnosed as "blind" or "partially blind", with no chance of obtaining improvement in their visual status, might now be materially assisted

by the utilization of these new techniques and devices.

2. To disseminate knowledge and techniques that were proving so efficacious to Ophthalmologists and Optometrists so that they could be applied in their own practices, with the view to broadening the base of routine visual care to include the cecutients who had been previously catalogued as "blind" or "partially blind" and beyond help insofar as current knowledge and techniques were available to general practitioners.

3. To investigate the validity of the currently accepted definition of blindness and ascertain the adequacy of the classification in view of the knowledge and concepts derived from the project.

METHODS AND PROCEDURES

Setting

The clinical work was performed within the confines of the Eye Clinics of the Presbyterian Eye, Ear and Throat Charity Hospital. Two examining rooms were involved. One room, 15' x 20', was used as the primary examining room because of space available for extra participants in the examination and professional spectators. This room also had suitable storage space for the specialized equipment used in the examination. The other room, one of the regular refracting rooms of the hospital, measured approximately 6' x 20'. These rooms were part of the clinical complex of the hospital embracing perhaps six thousand square feet and encompassing three other refracting rooms, nurses reception room for preliminary screening, treatment room, fields study rooms, storage rooms, rest rooms and a large waiting room on the second floor of the hospital. This entire installation was located in the southwest section of the city of Baltimore, an area embracing poor business establishments, of which many are empty. The Baltimore harbor is four blocks away and within walking distance are many slum dwellings and a large urban renewal housing development of several hundred units.

Source of Patients

Clients were referred from private practitioners, hospitals, clinics, public and private social agencies, the office of Vocational Rehabilitation, the Maryland Society for the Prevention of Blindness, the Maryland Workshop for the Blind and the Maryland School for the Blind. In addition, many patients were referred to the project from other patients previously helped and also as a result of some very successful publicity in the Baltimore press, radio and several public exhibits.

Candidates were not limited to those characterized as legally blind but included those individuals with visual loss who were hindered by such loss in the performance of their vocation or their normal affairs.

In December of 1962 the hospital embarked on a pioneer project which involved the examination and screening of the entire population of the Maryland School for the Blind, approximately 265 children from primary through high school age. A significant percentage of these children were found to have residual vision; as a result children were then examined under this project with the following results:

AGE	MALE	FEMALE	BENEFITTED			*NOT BENEFITTED
			** Minimal	Moderate	Maximum	
0-10	8	4	4	3	0	5
11-20	21	13	2	16	9	7
21-40	1	0	0	1	0	0
Total	30	17	6	20	9	12

*Many of the non-benefitted group were already adequately corrected with their present glasses and could be improved no further.

**See page 20.

Medical Examination

All patients referred to the clinic for optical aids were thoroughly investigated by physical examination to ascertain the validity of the patient's diagnosis, to insure that the patient's past and potential management had reached its maximum benefit and that the prescription of optical aids would not be contra-indicated in the view of the patients specific diagnosis. Each patient went through this physical examination performed by an Ophthalmologist, either provided by the staff of the hospital or by a recognized Board Ophthalmologist referring patients to the clinic. In a few instances the physical was completed by the resident staff.

Psychological Examination

In addition to the medical examinations, patients were screened from a psychological viewpoint to ascertain not only their functional ability to handle these aids but also to try to assess their motivation and desire for improvement. The preliminary work-up from the psychological social worker proved invaluable to the examiner in presenting a composite picture of the patient. They were also valuable to the patient in that they prepared him for the extensive examination procedure and gave him a fairly good concept of what to expect in the way of examination procedures and low vision aids.

Economics

It was attempted to have the facility as self-sufficient as possible for current expenses. Those individuals who could afford the cost of services and optical aids were charged on the basis of regular clinic fees insofar as possible. This usually amounted to a charge of \$3.00 for the first clinic visit and no charge for subsequent visits. Optical aids were dispensed on the same basis as regular clinic patients. Those individuals who could not afford the cost of services and equipment were often aided by service clubs interested in helping the visually impaired, most often the Lions Club. When the patient was part of the Vocational Rehabilitation Program funds were received from that program. In no instance were glasses or aids dispensed to the patient at no cost. It was the feeling of those involved in the program that where the patient required a prescription, telescopic lens or the like, that the patient should pay something even if only a dollar. It was felt that the patient then had a vested interest in his case and would not only take better care of his prescription but might even persevere a little longer to make the adjustment to the device. In the few instances where the patient could not make the adjustment to the telescope or reading microscope and returned them to the project, his money was refunded if he so requested.

In every instance where the patients needed a low vision aid and could not afford to pay for it, the device was provided. At no time was ability to pay a consideration in prescribing.

Public Relations

In the supplement to the Sunday Sun on December 3, 1961 an article on the work being done at the Presbyterian Hospital was published. While this article was

written in a style to appeal to newspaper readers, every effort was made to avoid grandiose claims and arousing false hopes in the hearts of the families of persons who were potential patients. Those involved in the program considered the article timely because many patients were subsequently examined who would never have been reached otherwise. A condensation of the article appears as Appendix B.

A display was arranged in the downtown store window of one of the leading retail establishments in Baltimore in the fall of 1962. This display also had a salutary effect on the program and resulted in other potential patients reaching the examination stage. A picture of this display is carried as Appendix C.

The newly opened Baltimore Civic Center featured a hobby show aimed primarily at the elderly in the spring of 1963. An exhibit was prepared similar to the one mentioned above and again the results were most favorable and resulted in information reaching visually impaired patients who needed further investigations into the use of low vision aids.

As a result of these public relation efforts and the "word of mouth" publicity from the patients treated, the program serviced more patients and further benefits were derived, not all of which became immediately manifest. Many patients who had previously despaired of their visual status were again encouraged to find relief of their handicap. Practitioners in the area were alerted and encouraged to investigate the work being done through the optical aids clinic and to put into practice the techniques used at the hospital. It became readily apparent that we were favorably affecting the visual status of patients who never came through the clinic. As a result of the work they were now doing, the ophthalmologists involved were better able to handle severely visually impaired patients.

More service clubs became interested in the program and, as a result, we were able to draw on a much larger segment of the Baltimore community for financial support when it became necessary to provide some of the more expensive prostheses prescribed. Some of the same service clubs made donations of equipment to the hospital which were of benefit to the program, such as air conditioning for the main examining room and an extra giant scope.

Clinic Procedure

The patient's initial contact with the installation was invariably via telephone which resulted in the call being referred to the Eye Clinic. By proper questioning the nurse in the clinic ascertained that a low vision refraction was necessary. The patient was then referred to the Social Service Department for his original appointment. The Social Service Department explored the following: 1) The source of the referral; 2) Social history and financial responsibility; and 3) Motivation. In many cases a social worker was then dispatched to the client's home where an evaluation was made and a report filed for the staff investigators. A typical report is attached as Appendix D.

On the patient's first visit to the hospital a complete medical record was initiated

utilizing the report of the referring agency. Where necessary, the patient was given a complete ophthalmological examination preliminary to the low vision refraction. The low vision examination is detailed later in this report. Dispensing of prescription followed the examination. The patient was either requested to return or voluntarily returned to the hospital or social worker for follow-up or his progress was followed through his teacher.

The Examination

Every effort was made to place the client completely at ease and to avoid tension. This was often difficult since the patient had usually aroused himself into a state of anxiety regarding the examination as his court of last resort.

A careful and complete history was taken, giving the patient every opportunity to elucidate on his condition. This gave the examiner the opportunity to evaluate the patient. Many interesting and informative details were garnered at this stage. How did the patient walk into the room, approach and seat himself in the chair? Were his actions visually or tactually dominated? Had the patient resigned himself to blindness and made the mental adjustment to same? In which case, would it be necessary to reverse the process? Did the patient come of his own volition or at the urging of his family? Did he himself seek improvement or was he happy in his special situation within the family group? What were his motivations?

Over 75% of those examined were hoping for improvement in near acuity-reading, sewing, etc. This was quite important later because many patients could be helped in areas where they were not seeking assistance and whereas the examiner would feel he had achieved quite a success, the patient, motivated in another direction, might reject the improvement as unwanted. Those patients seeking near improvement might reject a dramatic improvement in their distance vision and vice versa.

The patient's prescription, if any, was neutralized, as well as any other device he was using such as a hand magnifier, etc. A careful visual acuity was taken at distance and near, with and without correction. The examination was invariably started at ten feet from the patient and very rarely was the twenty foot distance used. More frequently the chart was moved closer to the patient if he could not achieve at ten feet. The examination was conducted from the point where the patient could achieve. Distance charts used were direct reading charts and were available up to Snellen 800 in size; for example, 10/800, 5/800, etc., depending on the distance of the chart from the patient. A variety of near cards were used with type varying from 5M to Feinbloom #1. This taking of acuity is considered very important. Many patients who wore their corrections every waking moment were found to see better without their glasses, indicating changes from myopia to hyperopia or vice versa.

After external and ophthalmoscopic examinations were completed a keratometric reading was taken on every patient. It was found that this instrument was exceedingly accurate and this examination was one of the most reliable objective tests

available during the sub-normal vision examination.

A static retinoscopic examination was then performed, without cycloplegia. From this point the examination then proceeded to the subjective, again without cycloplegia.

Remembering that this part of the examination was done at the point at which the patient could achieve three feet, ten feet and etc., and being guided by the original acuities, a laborious subjective test was then initiated. This differs in many respects from a normal examination in the following areas: 1) Because we are dealing in gross visual discrimination the usual .25 diopter steps are jettisoned in favor of one, two or even five diopter stops, keeping in mind that in many instances it might be possible to refine the final prescription closer than one or two diopters. 2) By the same token, where searching out the cylindrical components, small degrees of cylinder are of little consequence. We searched for gross cylindrical findings using heavy values of cross cylinders for probing +1.00 and -1.00 diopters, and even ± 1.50 cross cylinders. It was again not unusual to prescribe four, five or six diopters of cylinder to a patient previously wearing a spherical correction. In one instance an eleven diopter cylinder was prescribed. 3) Frequently a subjective examination was undertaken with the telescopic lens in place to take advantage of the increased visual acuity engendered. 4) Levels of illumination were varied as the patient or examiner dictated. 5) When the best visual acuity was obtained with standard lenses, and where it was felt that the patient could handle the prosthesis, a telescopic spectacle was introduced in those cases where the best corrected acuity was less than 20/100 or 20/80. The most frequently used telescopic power was 2.2 x, which is available in several forms. Excellent optical and cosmetic results were achieved using the Feinbloom Bioptic Model I and Model II. Unfortunately, delivery was very poor on these devices and workmanship was not uniformly good. While spectacular results can be achieved with the telescopic spectacles, it was found that many patients were unable to adapt to these devices without excessive follow-up training. Many patients never did make the transition, with the result that we became increasingly cautious in prescribing these devices. Cost was a real consideration in these instances. In an effort to overcome the latter consideration we quite often made use of the 2.5 x Japanese sport glass. This is a 2.5 power pair of binoculars with variable focus of ± 2 diopters mounted in a plastic frame, fitted with temples, and priced at less than \$15.00. We found this a very effective device. Where a patient adapted well to this prosthesis we were much less reluctant to then take the patient into the more expensive, but cosmetically more acceptable, fixed focus telescopic lens. 6) In ascertaining the reading correction, and this in our opinion is the heart of severe visual impairment alleviation, the average examiner rarely if ever prescribed over three or three and one-half diopters of near correction. This is merely the starting point in severe visual impairment and a reading addition of ten, twenty, or thirty diopters can create tremendous improvements in patients heretofore considered hopeless. These lenses can bring acuities up to J3 or better where no demonstrable near acuity existed before. The examiner must keep in mind however that as the power of the reading addition in-

creases the reading distance decreases, a ten diopter reading addition calls for a 4" reading distance, a twenty diopter addition 2" and etc. In most instances the patient will fight this decreased reading distance. As a result, we used the technique of having the patient hold the reading card at the nose, slowly moving the card away until clear focus was attained. In older patients the concept of close reading was most difficult to convey. Very little use was made of hand held reading devices (hand magnifiers, etc.) as it was the philosophy of the examiners that any device that could be carried in the hand could be more effectively worn on the head leaving the patient's hands free to manipulate any task he was attempting.

During the course of the examination frequent notations were made on the card especially designed for this special refraction. This card is carried as Appendix E.

In many instances during the course of the examination the cost of the prosthesis or prescription was used as a probe of the patient's motivation. For example, when fitting a telescopic lens to the patient and trying to gauge his response to, and desire for the prosthesis, the loaded question was asked, "Is it \$50.00 better?" As crude as the technique sounds, there were times when it was quite effective in determining whether or not to prescribe the aid.

At the conclusion of the examination the results were recorded on the reporting form shown as Appendix F.

Upon the completion of the examination the prescription was then written and the aids ordered through the hospital optician and the patient instructed to return at a certain date. It was the responsibility of the examiner to dispense to the patient, the rapport established during the examination then being extended through delivery. Care was exercised at the end of the examination to caution the patient of the limitations in the final prescription, lest he, during the intervening time, build his hopes and embellish his expectations past reality. Where the patient had been referred by another practitioner, a report was routinely sent to the referring doctor.

Whenever possible the patient was scheduled for a progress-check appointment to evaluate adaptation to the prescription and when further training was necessary it was given. Occasionally the social worker would visit the patient, especially if he could not return to the hospital for evaluation.

RESULTS OF THE PROGRAM

The results of the program were numerous, some immediately apparent, others less obvious but none the less existent.

Educational Results

Within the professional field we were highly gratified at the number of eye specialists who came to visit and to observe. The greater majority were from the immediate area but others came from far afield. We were honored to have an Optometrist from Hawaii spend a full day with the staff preparatory to setting up a similar installation in Honolulu.

The effect within the Baltimore Metropolitan area was striking. Five years ago we had many patients referred to the clinic by the practitioners who were materially benefitted by a high powered convex reading addition. As a result of each referral reports were sent to the referring doctor. In the latter stages of our operations we were not observing this type of case with the same frequency and investigations revealed that these men were now fitting these patients in their own offices with excellent results. Through the work of the clinic we were thus indirectly benefitting hundreds of patients whom we never saw, a truly gratifying development. This expansion of services within the professional field is an ever-spreading experience.

In the public field, as a result of the work done at Presbyterian Hospital on Project RD-701-61, many organizations were made cognizant of the possibility of subnormal vision correction. Some service clubs were so stimulated by the work that they contributed equipment to the clinic. As more and more people came in contact with the project and word spread, the patient demand exerted on the practitioner not directly in contact with the operation forced many to re-survey their techniques with benefits noted above.

Scores of patients were examined as a result of the educational public relations policy previously noted.

As a result of this study it was determined that the current definition of blindness is obsolete. The value of an Optical Aids Clinic to the community was irrefutably established.

RECOMMENDATIONS

As the participants of RD-701-61 raise their sights and allow the project to recede into the total picture of care and rehabilitation of the partially sighted, several features of the overall program come into sharper focus and some glowing deficiencies of the total program cry out for action.

Definition of Blindness

The need for a new definition of blindness is apparent. Our society is now working with an archaic definition, derived before the pioneering work of the IHB and subsequent studies. The present definition is based on distance acuity in its entirety, despite the fact that our culture today places its main emphasis on the near point of vision. Absolutely no weight is placed on the clients near abilities. Many people with better than 20/200 vision at distance have little or no visual acuity (or ability) at the near point. These people who barely avoid the distance criterion for blindness are relatively helpless in the world of the printed page, dials and gauges on household and industrial appliances, etc. They are the visually neglected, impaired and friendless —definitionless. By statute they should be employable but in practicality they cannot achieve.

Conversely, many patients classified as blind are capable of achieving J3 or better at near, capable of the most intricate and demanding near tests. Many of these people are gainfully employed and doing an excellent job but they fall under the current definition of blindness.

The need is for a comprehensive definition embracing distance and near acuity, field of vision, binocularity, possibly color discrimination, etc.

Standardized Visual Acuity Testing Cards

The need for standardized visual acuity testing cards for distance and near testing is especially apparent when rating a patient's near ability, Jaeger, Snellen, percentage and point type. We have the entire spectrum in use today. Any attempt to correlate the near acuities recorded by different observers must be weighed by the need to compare the different grading systems used. The need for a universally accepted method of recording near acuities is apparent.

The situation with regard to distance testing is not so acute but the development of a direct reading cardboard chart readily available is apparent.

Federal Subsidy

There is a pressing need for an ongoing Federal subsidy in the development and production of a sturdy, practical, cosmetically acceptable telescopic spectacle. Because of their condition, many times these patients are poor and they cannot afford expensive devices. The number of persons able to wear a telescope or reading microscope is limited, thus it is readily seen that there is no call for volume production. For this reason it is amazing that the more recent telescopes were produced at all. Further research and development is essential as well as some surety of production. It is apparent that this must be subsidized.

Research and Grants

Further research under grants is probably necessary in training the patient in the use of the subnormal vision aid. From the exotic trioptic, a combination of distance telescope and near microscope in one lens, to the simple high plus near lens, a process of adaptation is necessary. The older the patient the more arduous the adaptation. By and large, this is an unexplored field and much research remains to be done. This leads one easily into the study of geriatrics and subnormal vision. As the life expectancy of our population lengthens the percentage of older people requiring low vision aids increases. These people have proven to be the most difficult to help. They are the ones who adapt the least to the low vision device, thus the group which should theroretically benefit the most from an optical aids program is proving the most difficult to reach. Possibly a new speciality is called for in rehabilitative procedures, requiring rehabilitative therapist efforts working within the framework of a subnormal vision clinic. Recency and senility go hand in hand in retarding acceptance of the microscope and telescope. If the examiner is to train the patient and break down the resistance barriers he is then not able to handle the volume of patients awaiting his services. Obviously he needs an assistant to amplify on the work performed and lead the patient into the realm of low vision devices.

Research in instrumentation is also necessary. Our experience with projection magnifiers was poor. The magascope and the AO projection magnifiers were both clumsy and unwieldy. Illumination in the better instrument was unsatisfactory. The need for this type of instrument is apparent and some efforts must be expended in developing an efficient, light weight, brightly illuminated and inexpensive type of projection magnifier.

Regional Low Vision Clinics

Regional Low Vision Clinics could be established to assure every area of the nation the availability of this proven resource.

SUMMARY

In summary, a total of 321 patients with subnormal vision were examined in the manner specified in the report. 51.3% of these patients were male and 48.7% female and almost half in the 61-80 year age group. Of the group, 247 individuals (77%) were benefitted in some way with the various optical aids at our disposal. Many of the remaining non-benefitted group were already adequately corrected with their present glasses and could be improved no further. The primary site of eye affection of the subnormal vision patient was the retina which was involved in approximately 60% of the cases, such as macular degeneration, diabetic retinopathy, etc.

Included in the project were 47 students from the Maryland School for the Blind, 21 male and 13 female up to the age of 20 years, of whom 35 individuals (74.5%) were benefitted.

TABLE 1

TOTAL POPULATION BY AGE AND SEX

AGE	<u>TOTAL</u>		<u>MALE</u>		<u>FEMALE</u>	
	NUMBER	PERCENTAGE	NUMBER	PERCENTAGE	NUMBER	PERCENTAGE
0-10	19	5.9	12	3.7	7	2.2
11-20	60	18.7	38	11.5	22	6.9
21-40	21	6.5	11	3.4	10	3.1
41-60	53	16.2	28	8.7	25	7.8
61-80	130	40.5	61	19.0	69	21.8
81+	38	11.8	16	5.0	22	6.9
Total	321		166	51.3	155	48.7



TABLE 2

SUCCESS IN USING AIDS BY AGE DISTRIBUTION

AGE	TOTAL	BENEFITTED	*NON-BENEFITTED
0-10	19	13	6
11-20	60	50	10
21-40	21	18	3
41-60	53	44	9
61-80	130	99	31
81+	38	23	15
Total	321	247	74

*Many of the non-benefitted group were already adequately corrected with their present glasses and could be improved no further.

TABLE 3

SUCCESS IN USING AIDS BY EDUCATIONAL ATTAINMENT

GRADES COMPLETED	TOTAL	BENEFITTED	*NON-BENEFITTED
1-8	170	132	38
9-12	81	67	14
12+	23	20	3
None	8	3	5
No Record	39	25	14
Total	321	247	74

*Many of the non-benefitted group were already adequately corrected with their present glasses and could be improved no further.



TABLE 4

SUCCESS IN USING AIDS BY OCCUPATIONAL STATUS

OCCUPATION	TOTAL	BENEFITTED	*NON-BENEFITTED
Employed	76	54	22
Student	78	62	16
Retired	92	80	12
None (Includes house- wife)	60	41	19
No Record	15	10	5
Total	321	247	74

*Many of the non-benefitted group were already adequately corrected with their present glasses and could be improved no further.



TABLE 5

SUCCESS IN USING AIDS BY SITE OF EYE AFFECTION

EYE AFFECTION PRIMARILY RESPONSIBLE FOR LOW VISION	TOTAL	BENEFITTED	*NON-BENEFITTED
Eyeball in general	13	8	5
Glaucoma	22	14	8
Affections of Cornea	10	8	2
Affections of Lens	1	1	0
Cataracts	17	12	5
Affections of Retina:			
Retinitis & Retinopathy	94	73	21
Detached Retina	1	1	0
Retinitis Pigmentosa	11	8	3
Macular Degeneration	82	65	17
Other	3	2	1
Affections of Optic Nerve	27	18	9
Pathways & Visual Cortex (includes nystagmus)	25	23	2
Retrolental Fibroplasia	13	11	2
Trauma	2	1	1
Total	321	245	76

*Many of the non-benefitted group were already adequately corrected with their present glasses and could be improved no further.



TABLE 6

DEGREE OF SUCCESS ACCORDING TO AGE

AGE	TOTAL	**MINIMAL	**MODERATE	**MAXIMUM
0-10	13	5	7	1
11-20	51	5	25	21
21-40	16	0	9	7
41-60	45	5	27	13
61-80	99	34	60	5
81+	23	12	10	1
Total	247	61	138	48

**Minimal-Slight improvement in visual acuity at distance or near, apparent to and accepted by the patient or a more significant visual improvement not totally accepted by the patient, i.e. used intermittently.

**Moderate-A meager improvement readily accepted, appreciated and utilized by the patient or a marked improvement not totally accepted, yet not rejected. Subjective benefit not commensurate with that anticipated by the examiner.

**Maximum- A significant improvement in visual acuity with corresponding increase in visual abilities, accepted by the patient and incorporated into his customary every-day activities.

APPENDIX

APPENDIX A

EQUIPMENT

2 Examining Chairs
1 Ophthalmometer
1 Keratometer
Ophthalmoscopes
Giantscope
Retinoscopes , Spot & Streak
Rheostats and Transformers
Lensometer
Perimeter
Corrected Trial Lens Sets and Trial Frames
Sub-Normal Vision Testing Charts for distance
 1. B & L Direct Reading
 2. Feinbloom
 3. Maryland Workshop Set for Illiterates
Reading Charts for Near (Assorted)
Cross Cylinders (Up to + and -1.50)
Policoff Reading Microscopes
Telecopter with Reading Adds
Plastic I Gard Reading Microscopes (McLeod)-3
Feinbloom Reading Microscopes (Assorted)
Testing Telescopes , with Adds (Assorted)
 1. Feinbloom
 2. Kollmorgen
 3. Univis
Frame Warmer
Projection Magnifier (AO)
1 Set of Contact Control Lenses (25)
Diameter Gauge
Thickness Gauge
Reticule
Burton Light
Contactometer
Contact Lens Solutions (Assorted)
1 Set of Sub-Normal Vision Lenses (Supplied by Designs for Vision) Bioptics , Trioptics , etc .
2 5x Japanese Sport Glass

FAMILY

THE SUNDAY SUN

SECTION E

BALTIMORE, SUNDAY MORNING, DECEMBER 3, 1961

SECTION E

Bright New World
For The Blind

By MURIEL DOBBIN

live in a dim gray world. They see clearly enough to go market-watch television, to do housework to recognize a friend in the street. They have such poor sight that they can see at 7 feet what would be visible to a person with normal vision at 800 feet. They are not blind. These are the former and children who have a sight, even although they may only be able to distinguish light from dark. Patients who arrive at the Optical Clinic of the Presbyterian Eye, Ear and Throat Hospital on East Baltimore are always accompanied by friends or relatives. They may have to grope their way to the examining room.

When they leave, the world may be much brighter for them, as in the case of the 10-year-old boy who was fitted with special glasses, looked down, and exclaimed excitedly, "There's my feet!"

Many Per Cent Helped

About 100 patients have been treated at the clinic since it opened about a year ago. It is the only unit of its type in the city. The clinic is sponsored by the Office of Vocational Rehabilitation and operates on a \$25,000 Federal grant. Only a few patients a week can be seen in the small room allocated to the clinic at the

hospital, and appointments are made for as far ahead as February, 1962. Most of the cases are referrals from ophthalmologists and optometrists.

Frederick N. Griffith, director of the social service department at the hospital says "Eight out of ten people who come here can be helped to some degree or other." He explained that the object of the clinic was the rehabilitation of people who were not completely blind because they had some visual acuity.

There are about 3,000 registered blind persons in Baltimore, but there are no statistics on those whose sight is so poor that they live in a perpetual twilight. Such visual problems are discussed by Norman Bier, English consultant and technical adviser, in his book "Correction of Subnormal Vision," in which he claims, "Most registered blind people have some degree of vision . . . The definition of blindness covers a wide range of sight, but mostly ignores near vision although it is an important factor."

Rejected By Some

"If a person is partially blind, he is also partially sighted," Bier continues. "The emphasis on sight, however little, must be stressed and encouragement given to enable him to become and remain ac-

tive and independent in body and mind."

Yet Mr. Griffith related, surprisingly, that 10 per cent of the clinic's patients rejected the assistance offered them. "There is a psychological reaction involved," he said. "The type of glasses which will permit someone with very poor vision to see are often fitted with telescopic lenses and resemble miniature binoculars. Some patients—especially women—refuse to wear them for cosmetic reasons. In other cases, the semi-blind person has become the center of his family, which often develops an over-protective attitude, and he is reluctant to lose this special position."

There was a connection, he went on, between the latter type of patient and problem of malingering. Feigning almost complete blindness was also a method of achieving marked attention in the family circle, he said.

He described the case of a teen-age girl who claimed that she could hardly see. "We suspected during the examination that she was malingering, so we deliberately placed her mother in a waiting room, in the middle of a crowd of about 50 people. We then told the girl, who was still in the examination room, that the test was over and she could rejoin her mother. The pa-

uent rose from the examination chair, walked across the room, picked up her pocketbook, went into the waiting room, and without hesitation walked through the crowd to her mother."

A new patient either brings an ophthalmological report with him, or receives a thorough examination from one of the hospital's three resident ophthalmologists. This is followed by a refraction examination by the optometrist, and a home visit by Mrs. Beatrice Griffith, the clinic's social worker. If the clinic tests show that he can be helped the patient will return, to receive the glasses prescribed.

Pay Minimal Sum

"We would not accept a totally blind patient unless examination showed that surgery might produce an improvement so noticeable that we could be of assistance," said the social service director.

Nearly all of the patients pay for their treatment, even if only a minimal sum. Mr. Griffith explained that in accepting responsibility for some payment, the patient could not regard the service as entirely charitable. "People don't accept charity lightly. It is often repulsive to them, and we believe that even a token financial responsibility increases their interest in the

glasses, especially since the unusual appearance of the seeing device can create a bad first impression," he said.

The social service director added that they were hoping for a new grant to extend the clinic's service. "What we have in mind is a school in which patients would be trained in the use of these seeing aids," he explained. "This would mean more space, more staff and more money."

In such a school, patients would be trained to adjust to the "tunnel vision" produced by use of the telescopic lenses, and would be shown how to use the special glasses safely and efficiently in traffic, on stairs and in cars and buses.

New Seeing Technique

"They would be reintroduced to their homes, since what was familiar before would be seen more clearly and yet differently," said Mr. Griffith.

He explained that wearing the telescopic-lensed glasses involved learning to move the head rather than the eyes to see from side to side. "Persons with normal sight tend to use their eyes for peripheral vision," he said. In addition, the wearers of these special glasses had to adapt to the space distortion created by the high magnification of the lenses.

Contact lenses are prescribed as often as possible for children, but if the telescopic lenses were necessary, then the situation would be explained to schoolteachers and other students. "The other children would even be allowed to try them on, to satisfy their curiosity and prevent their making comments," he said.

The optical aids clinic is open from 9 A.M. to 2 P.M. every Tuesday, and each patient receives a 90-minute refraction examination from Robert Schwartz, the optometrist. In the examination chair, a testing frame is fitted over the patient's eyes, and he tries to read out numbers and letters on a chart 10 feet away. There is a reading examination during which most of these patients hold the reading card about 2 inches from their eyes.

"Everything's Foggy"

A 23-year-old man from Western Maryland sat tensely in the chair as Dr. Schwartz asked questions. The patient said he suffered from diabetes and had had trouble with his eyes for about two years. "I can't see too good. Everything's foggy," he said.

"What plans would you make if you could see more clearly?" asked Dr. Schwartz.

"I'd like to find a job...and I sure would like to be able to hunt again," said the patient.

Dr. Schwartz slid various lenses into the testing frame, then fitted it with a telescopic lense. The patient's identification of letters and figures immediately became more positive.

A Common Reaction

"The telescopic lens has produced a considerable improvement," said the optometrist, adding, "He has very poor vision. Without the special lens he saw at 7 feet what the average person would see at 800 feet, and with the lens he saw at 10 feet what the average person would see at 175 feet."

As he fitted the young man with the telescopic-lensed glasses, the patient looked at them with distaste. The optometrist did not appear surprised. "This is our next problem," he said. He led the patient to a window, took off the glasses, then replaced them. "See any difference?" he asked. The young man nodded, "Yes." He hesitated. "I wouldn't want to wear those all the time," he said.

An ophthalmologist tapped him on the shoulder, "These will help you to see. You're not in any beauty contest now," he told him. Dr. Schwartz explained, "He is rejecting the glasses cosmetically. This is a common reaction."

The patient fingered the glasses, tried them on, was shown a second pair slightly shorter in length, and chose them. Dr. Schwartz said he would be sent to the Maryland Workshop for the Blind to receive training for a suitable job. Without the special glasses, he pointed out, this would have been impossible.

Many of the cases at the clinic have almost immediate dramatic results, said Mr. Griffith, and they were sometimes followed by anticlimax as the patient could not adjust to the appearance of the glasses.

Almost Blind 18 Years

He recalled their first patient. . . . "She had been almost blind for eighteen years and could only distinguish between light and darkness. Before she left that day, she was reading the headlines in the newspaper." She had been fitted with powerful but rather cumbersome telescopic aids, he went on, and because of their appearance had said she would only wear them at home.

In the examination room, a white-haired woman was talking rapidly and almost without pause. "I'd like to be able to see the birds and flowers again," she said, "When I work in the yard I have to get down on my hands and knees."

She fished a tiny magnifying glass the size of a dime out of her pocketbook. "I got this little thing on a keyring and I use it to read things like recipes. I spell out one letter at a time," she said. She looked around the room. "Everything's a blur," she said, "I could pass my husband on the street without seeing him."

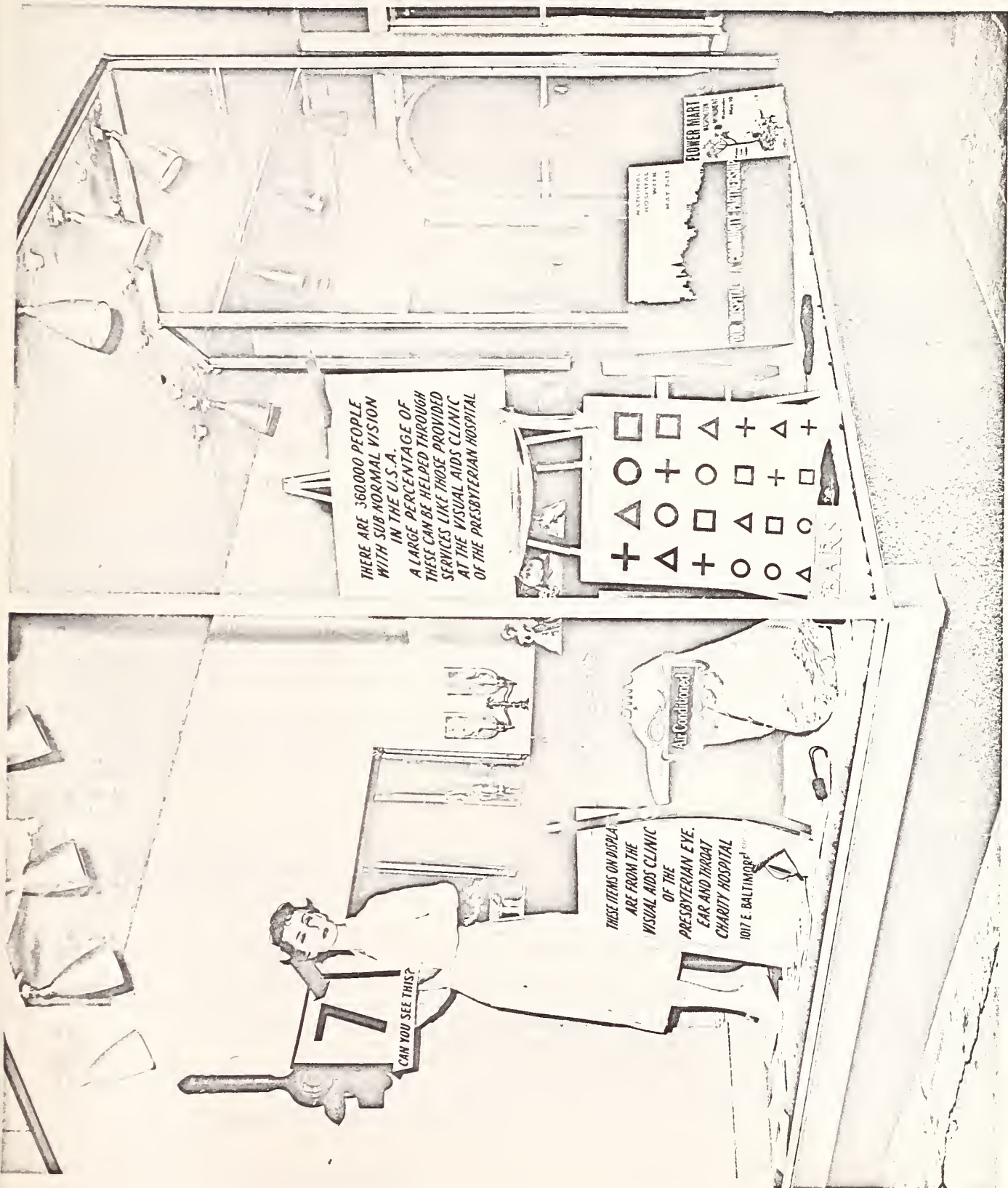
Good Motivation Vital

She was fitted with telescopic-lensed glasses, and after a moment, a smile spread across her face as she peered at the letter chart 10 feet away. "That's better . . . much better . . . I can read it," she said. She looked around the room again. "I can see people's faces!" she exclaimed. Dr. Schwartz nodded. "This patient has good motivation," he said, "She wants most of all to increase her sight, and so she is less concerned about the cosmetic side of it."

A young housewife who is the mother of five children came into the clinic for her annual eye examination, and told her story. "I couldn't do much of anything before I got these glasses," she said, "I could see people but not at any distance. I couldn't sew or do household chores, or even iron." When she was fitted with apparently ordinary glasses with a normal lens but an involved prescription, her life changed. She runs her seven-room house, cooks, watches television, and is even planning to buy a sewing machine. "I considered myself blind," she said, "This is a new world."

APPENDIX C

NATIONAL HOSPITAL WEEK DISPLAY



APPENDIX D

TYPICAL SOCIAL WORKERS REPORT ON POTENTIAL SUB-NORMAL PATIENT

Patient: *Mary Doe Case No. 481

On June 22, 1961 I visited Mary Doe, negro domestic, at the home of her employer, Mrs. Jones, where she is employed six full days a week. Mary is to be examined in the Optical Aids Clinic on June 27, 1961.

Mary is 53 years of age, had only a few grades of education and her work has always been as a domestic. Mary has worked for Mrs. Jones for 20 years and has never lost a day for illness. Mrs. Jones confided that Mary had syphilis at one time but feels it is arrested now.

Mary is a jolly person and fond of Mrs. Jones who is anxious to help her in any way. Mary explains that she began to notice some loss of vision about a year ago. In her spare time she read and crocheted and gradually her sight was lost enough to prevent her from continuing with these activities. The print of the newspaper became too blurred. She said she feels lost without her crocheting because she worked at it on her bus rides to and from Mrs. Jones home each day.

Mary can read bus numbers, travels outside alone and sees traffic lights. She does have difficulty when dusting furniture. She misses spots frequently. She can hem a dress but has to hold her work very close. Mary reads newspaper headlines and the larger print but needs a good light. She watches TV and can distinguish the characters and claims she sees the picture quite clearly. She is able to do all the ironing with no real difficulty. She is an excellent cook, serves dinner parties and has no trouble getting about in the kitchen. She does not use a cook book so the problem of not being able to read small print does not hinder her in the kitchen. Sun hurts her eyes at times and she then wears sunglasses. Mary recognizes people who enter the room. She has never worn glasses.

Lately Mary has had some pain in her eyes which she described as a "drawing" of the eyes in the morning after awakening. Some years ago her husband struck a blow to her left eye and it has had less vision since.

Mary has used a magnifying glass which she chose from Johns Hopkins Hospital but gave it away because she was not being helped by it after awhile.

She understands that she has cataracts and that she will need an operation.

Mary is very anxious to again be able to crochet and read and also to be able to see well enough to do good work for Mrs. Jones so that she may continue to be in her employ.

*Real names have been changed.

APPENDIX E

REFRACTIVE RECORD CARD INFORMATION DEVELOPED FOR SUB-NORMAL PATIENT VISION EXAMINATION

Case No. _____ Date _____
 Name _____ Address _____
 Birth Date _____ Telephone No. _____
 Referred By _____
 History: _____

Education _____
 Job Description _____
 Hobbies _____
 Visual Efficiency _____

Other Optical Aids Used _____

Visual Needs _____

Final Disposition: OD _____

OS _____

Old RX	How Long?	Worn Constantly?	V.A. RX	V.A. Naked	Near V.A. Naked And Distance	Near V.A. RX And Distance	Other
OD							
OS							

Externals:

Keratometry:
 OS _____
 OD _____

Ophthalmoscopy:

Static:
 OD _____
 OS _____

Subjective:
 OD _____
 OS _____

Near:
 OD _____
 OS _____

APPENDIX F
EXAMINATION RECORD REPORT FORM

OPTICAL AIDS CLINIC

Patient Identification (Name or No.) _____ Date _____

I. Center:

1. Cornell
2. Ind. Home for Bl.
3. Presbyterian Hospital
4. Mass. Eye & Ear
5. N.Y. Assn. for Bl.
6. Western Reserve
7. Wills Eye Hospital
8. _____

II. Age:

Y. No history

III. Sex:

1. Male 2. Female
Y. No history

IV. Chief Reader:

1. Spouse
 2. Children
 3. Sibs
 4. Friend
 5. Secretary
 6. Employer
 7. Other _____
- Y. No history

V. Duration of Poor Vision:

1. 0-6 mo.
 2. 6 mo.- 1 yr.
 3. 1- 2 yr.
 4. 2- 4 yr.
 5. 4- 8 yr.
 6. 8- 20 yr.
 7. 20 or over
- Y. No history

VI. Rate of Onset of Poor Vision

1. 1- 6 mo.
 2. 6 mo.- 1 yr.
 3. 1- 2 yr.
 4. 2- 5 yr.
 5. 5- 10 yr.
 6. 10 or over
 7. Sudden
- Y. No history

VII. Comprehensions:

1. Good
 2. Fair
 3. Poor
 4. Nil
- Y. No history

VIII. Difficulties:

1. Senility
 2. Language barriers
 3. Youthfulness
 4. Tremore
 5. Emotional problems
 6. Illiteracy
 7. Other
- Y. No history

IX. Education:

1. None
 2. Elementary
 3. High School
 4. College
 5. Postgraduate
- Y. No history

X. Occupation:

- Past _____
Y. No history
Present _____
Y. No history

XI. Job Title:

Y. No history

XII. Hours worked per week _____

Y. No history

XIII. Help Needed on Job _____

Y. No history

XIV. Visual Efficiency (far)

1. Travels outside
 2. Needs good light
 3. Watches television
 4. Watches movies
 5. Recognizes acquaintances
at six feet.
 6. Bothered by light
- Y. No history

XV. Visual Efficiency (Near)

1. Reads newsprint at 6"+
 2. Reads newsprint at 6"-
 3. Reads subheads at 6"+
 4. Reads subheads at 6"-
 5. Reads headlines at 12"+
 6. Reads headlines at 11" -7
 7. Reads headlines at 6"-
 8. Reads typing at 6"+
 9. Reads typing at 6"-
 10. Cannot see any of above
- Y. No history

XVI. Aids Used: (Distance)

1. Brand _____
- Y. No history
2. Type _____
- Y. No history
3. Strength _____
- Y. No history

XVII. Aids Used: (Near)

1. Brand _____
- Y. No history
2. Type _____
- Y. No history
3. Strength _____
- Y. No history

XVIII. Greatest Visual Need:

1. Travel
 2. Reading
 3. Close Work
 4. Distance Work
 5. Movies
 6. Television
 7. Playing Cards
 8. Sewing
 9. Other _____
- Y. No history

XIX. Secondary Visual Need:

1. Travel
 2. Reading
 3. Close Work
 4. Distance Work
 5. Movies
 6. Television
 7. Playing Cards
 8. Sewing
 9. Other _____
- Y. No History

XX. Diagnosis (Ophthalmoscopic Examination):

XXI. Major Cause of Poor Vision:

1. Cornea
 2. Lens
 3. Vitreous
 4. Nerve
 5. Retina
 6. Choroid
 7. Supression
 8. Optic Pathway
 9. Refractive Errors
 10. Other
- Y. No history

XXII. Gross Fields:

A. Scotomata

1. 5° to 6/330/white
 2. 10° to 6/330/white
 3. 20° to 6/330/white
 4. 30° to 6/330/white
 5. Peripheral islands remaining
- Constrictions to
6. 20° - 6/330/white
 7. 10° - 6/330/white
 8. 5° - 6/330/white
 9. Other _____
- Y. No history

XXIII. Fixation:

1. Steady
 2. Unsteady
 3. Nasal
 4. Temporal
 5. Wide Nystagmus
 6. Slow Nystagmus
 7. Rapid Nystagmus
 8. Horizontal Nystagmus
 9. Rotary Nystagmus
 10. Veritcal Nystagmus
- Y. No history

XXIV. Visual Acuity w/o glasses

A. Distance-Right Eye

1. 20/200-18/200
2. 17/200-15/200
3. 14/200-12/200
4. 11/200-9/200
5. 8/200-6/200
6. 5/200-3/200

7. 2/200 - 1/200
 8. Light Perception
 9. Faulty light projection
 Y. No history
 B. Distance-Left Eye
 1. 20/200-18/200
 2. 17/200 - 15/200
 3. 14/200 - 12/200
 4. 11/200 - 9/200
 5. 8/200 - 6/200
 6. 5/200-3/200
 7. 2/200-1/200
 8. Light Perception
 9. Faulty light Projection
 Y. No history
 XXV. Visual Acuity w/glasses
 A. Distance-Right Eye
 Wearing RX _____
 1. 20/200 - 18/200
 2. 17/200 - 15/200
 3. 14/200 - 12/200
 4. 11/200 - 9/200
 5. 8/200 - 6/200
 6. 5/200 - 3/200
 7. 2/200 - 1/200
 8. Light Perception
 9. Faulty Light Projection
 Y. No history
 B. Distance - Left Eye
 Wearing RX _____
 1. 20/200 - 18/200
 2. 17/200 - 15/200
 3. 14/200 - 12/200
 4. 11/200 - 9/200
 5. 8/200 - 6/200
 6. 5/200 - 3/200
 7. 2/200 - 1/200
 8. Light Perception
 9. Faulty Light Projection
 Y. No history
 XXVI. Near w/o Glasses
 A. Right Eye _____
 Y. No history
 B. Left Eye _____
 Y. No history
 XXVII. Near w/glasses
 A. Right Eye _____

Near RX _____
 Y. No history
 B. Left Eye _____
 Near RX _____
 Y. No history
 XXVIII. Retinoscopy: V.A.
 A. Right _____
 Y. No history Y.No history
 B. Left _____
 Y. No history Y. No history
 XXIX. Keratometry:
 A. Right _____
 Y. No history
 B. Left _____
 Y. No history
 XXX. Manifest Refraction:
 A. Right _____
 Y. No history
 B. Left _____
 Y. No history
 XXXI. No. visits before final RX:

1	6
2	7
3	8
4	9
5	10

 Y. No history
 XXXII. Special Aids or Magnifiers
 tried: _____

 Y. No history
 XXXIII. Aids or Magnifiers Prescribed:
 A. Distance V.A.

1. Right _____	_____
Y. No history	No history
2. Left _____	_____
Y. No history	No history

 B. Near

1. Right _____	_____
Y. No history	No history
2. Left _____	_____
Y. No history	No history

 XXXIV. Remarks: _____

c. 1

HV5650 Hoover, Richard E.
H769 LOW VISION CLINIC; FINAL
REPORT. (1967)

Date Due			
<i>Phillips</i>			
<i>Chitt</i>			
<i>Matthews</i>			
<i>Kenmore</i>			

AMERICAN FOUNDATION FOR THE BLIND
15 WEST 16th STREET
NEW YORK, N. Y. 10011

